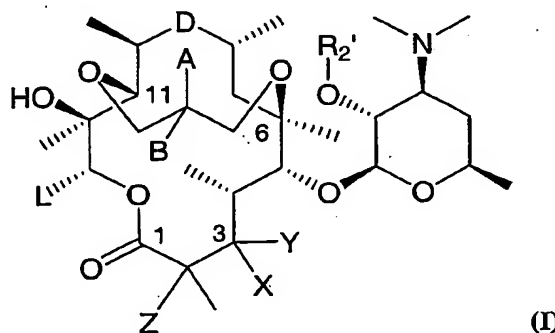


WHAT IS CLAIMED IS:

1. A compound of Formula I, or a pharmaceutically acceptable salt or ester or prodrug thereof:



wherein:

A is

- i) -OH;
- 10 ii) -OR_p, where R_p is a hydroxy protecting group;
- iii) -R₁, where R₁ is aryl, substituted aryl, heteroaryl, or substituted heteroaryl;
- iv) -OR₁, where R₁ is as previously defined;
- v) -R₂, where R₂ is
- 15 (a) hydrogen;
- (b) halogen;
- (c) -C₁-C₆ alkyl containing 0, 1, 2, or 3 heteroatoms selected from O, S or N,
optionally substituted with one or more substituents selected from halogen, aryl,
substituted aryl, heteroaryl, or substituted heteroaryl;
- 20 (d) -C₂-C₆ alkenyl containing 0, 1, 2, or 3 heteroatoms selected from O, S, or N,
optionally substituted with one or more substituents selected from halogen, aryl,
substituted aryl, heteroaryl, or substituted heteroaryl; or
- (e) -C₂-C₆ alkynyl containing 0, 1, 2, or 3 heteroatoms selected from O, S or N,
optionally substituted with one or more substituents selected from halogen, aryl,
substituted aryl, heteroaryl, or substituted heteroaryl;
- 25 vi) -OR₂, where R₂ is previously defined;
- vii) -S(O)_nR₁₁, where n=0, 1 or 2, and R₁₁ is R₁ or R₂, where R₁ and R₂ are as previously
defined;

- viii) $-\text{NHC}(\text{O})\text{R}_{11}$, where R_{11} is as previously defined;
- ix) $-\text{NHC}(\text{O})\text{NHR}_{11}$, where R_{11} is as previously defined;
- x) $-\text{NHS}(\text{O})_2\text{R}_{11}$, where R_{11} is as previously defined;
- xi) $-\text{NR}_{14}\text{R}_{15}$, where R_{14} and R_{15} are each independently R_{11} , where R_{11} is as previously defined; or
- xii) $-\text{NHR}_3$, where R_3 is an amino protecting group;

B is

- i) hydrogen;
- ii) deuterium;
- iii) halogen;
- iv) $-\text{OH}$;
- v) $-\text{R}_1$, where R_1 is as previously defined;
- vi) $-\text{R}_2$, where R_2 is as previously defined; or
- vii) $-\text{OR}_p$, where R_p is as previously defined, provided that when B is halogen, $-\text{OH}$ or OR_p , A is R_1 or R_2 , where R_1 and R_2 are previously defined;

or, alternatively, A and B taken together with the carbon atom to which they are attached are

- i) $\text{C}=\text{O}$;
- ii) $\text{C}(\text{OR}_2)_2$, where R_2 is as previously defined;
- iii) $\text{C}(\text{SR}_2)_2$, where R_2 is as previously defined;
- iv) $\text{C}[-\text{O}(\text{CH}_2)_m]_2$, where $m=2$ or 3 ;
- v) $\text{C}[-\text{S}(\text{CH}_2)_m]_2$, where m is as previously defined;
- vi) $\text{C}=\text{CHR}_{11}$, where R_{11} is as previously defined;
- vii) $\text{C}=\text{N}-\text{O}-\text{R}_{11}$, where R_{11} is as previously defined;
- viii) $\text{C}=\text{NNHR}_{11}$, where R_{11} is as previously defined;
- ix) $\text{C}=\text{NNHC}(\text{O})\text{R}_{11}$, where R_{11} is as previously defined;
- x) $\text{C}=\text{NNHC}(\text{O})\text{NHR}_{11}$, where R_{11} is as previously defined;
- xi) $\text{C}=\text{NNHS}(\text{O})_2\text{R}_{11}$, where R_{11} is as previously defined;
- xii) $\text{C}=\text{NNHR}_3$, where R_3 is as previously defined; or
- xiii) $\text{C}=\text{NR}_{11}$, where R_{11} is as previously defined;

L is

- i) $-\text{CH}_3$;
- ii) $-\text{CH}_2\text{CH}_3$;

- iii) $-\text{CH}(\text{OH})\text{CH}_3$;
- iv) $-\text{C}_1-\text{C}_6$ alkyl, optionally substituted with one or more substituents selected from aryl, substituted aryl, heteroaryl, or substituted heteroaryl;
- v) $-\text{C}_2-\text{C}_6$ alkenyl, optionally substituted with one or more substituents selected from aryl, substituted aryl, heteroaryl, or substituted heteroaryl; or
- vi) $-\text{C}_2-\text{C}_6$ alkynyl, optionally substituted with one or more substituents selected from aryl, substituted aryl, heteroaryl, or substituted heteroaryl;

D is $-\text{CH}_2\text{N}(\text{Q})-$, $-\text{C}(\text{O})\text{N}(\text{R}')-$, or $-\text{C}(\text{OR}')=\text{N}-$, wherein R' is R_{11} as previously defined;

Q is

- i) hydrogen;
- ii) $-\text{C}_1-\text{C}_{12}$ -alkyl, C_3-C_{12} -alkenyl, or C_3-C_{12} -alkynyl, all optionally substituted with one, two or three substituents independently selected from:
 - (a) halogen;
 - (b) $-\text{OR}_6$, wherein R_6 is selected from:
 1. hydrogen;
 2. $-\text{C}_1-\text{C}_{12}$ -alkyl containing 0, 1, 2, or 3 heteroatoms selected from O, S or N, optionally substituted with one, two, or three substituents independently selected from aryl, substituted aryl, heteroaryl, or substituted heteroaryl;
 3. aryl;
 4. substituted aryl;
 5. heteroaryl; and
 6. substituted heteroaryl;
 - (c) $-\text{NR}_4\text{R}_5$, where R_4 and R_5 are each independently R_6 , where R_6 is as previously defined, or in the alternative R_4 and R_5 , together with the atom to which they are attached, form a heterocycloalkyl or substituted heterocycloalkyl moiety;
 - (d) $-\text{N}-\text{O}-\text{R}_6$, where R_6 is as previously defined;
 - (e) $-\text{R}_1$, where R_1 is as previously defined;
 - (f) $-\text{C}_3-\text{C}_8$ -cycloalkyl;
 - (g) substituted $-\text{C}_3-\text{C}_8$ -cycloalkyl;
 - (h) heterocycloalkyl;

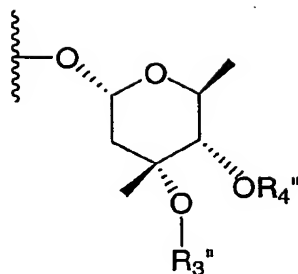
- (i) substituted heterocycloalkyl;
- (j) -NHC(O)R_6 , where R_6 is as previously defined;
- (k) -NHC(O)OR_7 , where R_7 is selected from:
 1. $\text{-C}_1\text{-C}_{12}$ -alkyl containing 0, 1, 2, or 3 heteroatoms selected from O, S or N, optionally substituted with one, two, or three substituents independently selected from aryl, substituted aryl, heteroaryl, or substituted heteroaryl;
 2. aryl;
 3. substituted aryl;
 4. heteroaryl; or
 5. substituted heteroaryl;
- (l) $\text{-NHC(O)NR}_4\text{R}_5$, where R_4 and R_5 are as previously defined;
- (m) $\text{-OC(O)NR}_4\text{R}_5$, where R_4 and R_5 are as previously defined;
- (n) -OC(O)R_7 , where R_7 is as previously defined;
- (o) -OC(O)OR_7 , where R_7 is as previously defined;
- (p) $\text{-OC(O)NR}_4\text{R}_5$, where R_4 and R_5 are as previously defined;
- (q) -C(O)R_6 , where R_6 is as previously defined;
- (r) $\text{-CO}_2\text{R}_6$, where R_6 is as previously defined; or
- (s) $\text{-C(O)NR}_4\text{R}_5$, where R_4 and R_5 are as previously defined;

X is hydrogen;

Y is

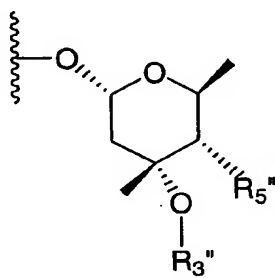
- i) hydrogen;
- ii) -OH ;
- iii) -OR_p , where R_p is as previously defined;
- iv) -OR_{11} , where R_{11} is as previously defined;
- v) -OC(O)R_{11} , where R_{11} is as previously defined;
- vi) -OC(O)NHR_{11} , where R_{11} is as previously defined;
- vii) $\text{-S(O)}_n\text{R}_{11}$, where n and R_{11} are as previously defined;

viii)



(1) where R_3'' is hydrogen or methyl; R_4'' is hydrogen or R_p , where R_p is as previously defined;

5 ix)



(1) where R_3'' is as previously defined; R_5'' is NH_2 or R_{am} , where R_{am} is protected amino;

10 or, in the alternative, X and Y are combined together to form oxo;

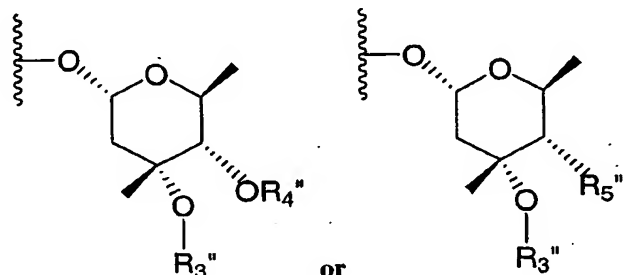
Z is

- 15 i) hydrogen;
 ii) methyl; or
 iii) halogen; and

R_2' is hydrogen or R_p , where R_p , is as previously defined.

2. A compound according to claim 1, or a pharmaceutically acceptable salt or ester
 20 or prodrug thereof, wherein D is $-CH_2N(Q)-$.

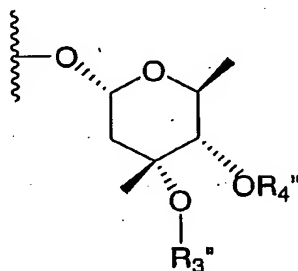
3. A compound according to claim 1, or a pharmaceutically acceptable salt or ester or prodrug thereof, wherein D is $-\text{CH}_2\text{N}(\text{Q})-$; X is hydrogen; and Y is



wherein R_3'' , R_4'' and R_5'' are each as defined in claim 1.

5

4. A compound according to claim 3, or a pharmaceutically acceptable salt or ester or prodrug thereof, wherein Y is



10

5. A compound according to claim 1, or a pharmaceutically acceptable salt or ester or prodrug thereof, wherein D is $-\text{N}(\text{Q})\text{CH}_2-$ and X and Y taken together are oxo.

6. A compound according to claim 1, or a pharmaceutically acceptable salt or ester or prodrug thereof, wherein D is $-\text{N}=\text{CH}(\text{OR}')$, wherein R' is as defined in claim 1.

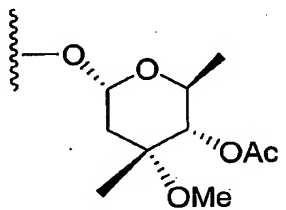
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7. A compound according to claim 1, or a pharmaceutically acceptable salt or ester or prodrug thereof, wherein D is $-\text{C}(\text{O})\text{N}(\text{R}')$, wherein R' is as defined in claim 1.

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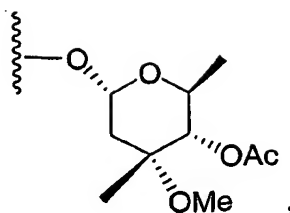
8. A compound according to claim 1, or a pharmaceutically acceptable salt or ester or prodrug thereof, selected from the group consisting of:

- (i) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is $C=CH_2$, D is $-CH_2N(Q)-$, $Q = X = Z = H$, $Y = OH$, $L = CH_2CH_3$, $R_2' = Ac$;
- (ii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is $C=CH_2$, D = $-CHN(Q)-$, $Q = Z = H$, X and Y taken together are oxo, L = CH_2CH_3 , $R_2' = H$;
- 5 (iii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached are $C=CH_2$, D = $-CH_2N(Q)-$, $Q = CH_3$, $X = Z = H$, $Y = OH$, $L = CH_2CH_3$, $R_2' = H$;
- (iv) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached are $C=CH_2$, D = $-CH_2N(Q)-$, $Q = CH_3$, $Z = H$, X and Y taken together are oxo, L = CH_2CH_3 , $R_2' = H$;
- 10 (v) a compound of Formula I, wherein A = H, B = CH_3 , D = $-CH_2N(Q)-$, $Q = X = Z = H$, $Y = OH$, $L = CH_2CH_3$, $R_2' = Ac$;
- (vi) a compound of Formula I, wherein A = H, B = CH_3 , D = $-CH_2N(Q)-$, $Q = X = Z = H$, $Y = OH$, $L = CH_2CH_3$, $R_2' = H$;
- 15 (vii) a compound of Formula I, wherein A = H, B = CH_3 , D = $-CHN(Q)-$, $Q = Z = H$, X and Y taken together are oxo, L = CH_2CH_3 , $R_2' = H$;
- (viii) a compound of Formula I, wherein A = H, B = CH_3 , D = $-CH_2N(Q)-$, $Q = CH_3$, $X = Z = H$, $Y = OH$, $L = CH_2CH_3$, $R_2' = H$;
- 20 (ix) a compound of Formula I, wherein A = H, B = CH_3 , D = $-CHN(Q)-$, $Q = CH_3$, $Z = H$, X and Y taken together are oxo, L = CH_2CH_3 , $R_2' = H$;
- (x) a compound of Formula I, wherein A = H, B = CH_3 , D = $-(C=NOH)-$, $X = Z = H$, Y =



- 25 L = CH_2CH_3 , $R_2' = Ac$;
- (xi) a compound of Formula I, wherein A = H, B = CH_3 , D = $-C(=O)NH-$, X =

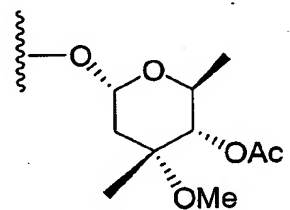
Z = H, Y =



L = CH₂CH₃, R₂' = Ac;

(xii) a compound of Formula I, wherein A = H, B = CH₃, D = -C(=O)NH-, X = Z =

5 H, Y =



L = CH₂CH₃, R₂' = H;

(xiii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached = C=CH₂, D = -CHN(Q)-, Q = CH₂-Ph, Z = X = H, Y = OH, L = CH₂CH₃,

10 R₂' = H;

(xiv) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached = C=CH₂, D = -CH₂N(Q)-, Q = CH₂-Ph, Z = H, X and Y are taken together are oxo, L = CH₂CH₃, R₂' = H;

(xv) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached = C=CH₂, D = -CH₂N(Q)-, Q = CH₂-(2-pyridyl), Z = X = H, Y = OH, L = CH₂CH₃, R₂' = H;

(xvi) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached = C=CH₂, D = -CH₂N(Q)-, Q = CH₂-(2-pyridyl), Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;

(xvii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached = C=CH₂, D = -CH₂N(Q)-, Q = CH₂-(3-quinolyl), Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;

(xviii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached = C=CH₂, D = -CH₂N(Q)-, Q = CH₂-(3-quinolyl), Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;

5 (xix) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached = C=CH₂, D = -CH₂N(Q)-, Q = CH₂(CH=CH)-Ph, Z = X = H, Y = OH, L = CH₂CH₃, R₂' = H;

(xx) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached = C=CH₂, D = -CHN(Q)-, Q = CH₂(CH=CH)-Ph, Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;

10 (xxi) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached = C=CH₂, D = -CH₂N(Q)-, Q = CH₂CH=CH-(2-pyridyl), Z = X=H, Y = OH, L = CH₂CH₃, R₂' = H;

(xxii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached = C=CH₂, D = -CHN(Q)-, Q = CH₂CH=CH-(2-pyridyl), Z = H, X and Y
15 taken together are oxo, L = CH₂CH₃, R₂' = H;

(xxiii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached = C=CH₂, D = -CH₂N(Q)-, Q = CH₂C≡C-(3-quinolyl), Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;

(xxiv) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached = C=CH₂, D = -CH₂N(Q)-, Q = CH₂C≡C-(3-quinolyl), Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;

(xxv) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached = C=CH-CH=CH-Ph, D = -CH₂N(Q)-, Q = CH₃, Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;

25 (xxvi) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached = C=CH-CH=CH-(3-pyridyl), D = -CH₂N(Q)-, Q = CH₃, Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;

(xxvii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached = C=CH-CH=CH-(3-quinolyl), D = -CH₂N(Q)-, Q = CH₃, Z = H, X and Y
30 taken together are oxo, L = CH₂CH₃, R₂' = H;

(xxviii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached = C=CH-(3-quinolyl), D = -CH₂N(Q)-, Q = CH₃, Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H; and

(xxix) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached = C=CH-Ph, D = -CHN(Q)-, Q = CH₃, Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H.

5 (xxx) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=CH₂, D is -CH₂N(Q)-, Q = X = Z = H, Y = OH, L = CH₂CH₂CH₃, R₂' = H;

(xxxi) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=CH₂, D is -CH₂N(Q)-, Q = CH₂CH₂CH₃, X = Z = H, Y = OH, L = CH₂CH₃, R₂' = H;

10 (xxxii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=CH₂, D is -CH₂N(Q)-, Q = CH₂CH₂CH₃, Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;

(xxxiii) a compound of Formula I, wherein A = H, B = CH₃, D = -CH₂N(Q)-, Q = CH₂CH₂CH₃, Z = H, X and Y taken together are oxo, L = CH₂CH₂CH₃, R₂' = H;

15 (xxxiv) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=O, D is -CH₂N(Q)-, Q = Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;

(xxxv) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=O, D is -CH₂N(Q)-, Q = CH₃, Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;

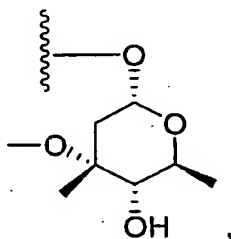
(xxxvi) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=O, D is -CH₂N(Q)-, Q = CH₂CH₂CH₃, Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;

25 (xxxvii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=N-OH, D is -CH₂N(Q)-, Q = Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;

(xxxviii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=N-OH, D is -CH₂N(Q)-, Q = CH₃, Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;

30 (xxxix) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=N-OH, D is -CH₂N(Q)-, Q = CH₂CH₂CH₃, Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;

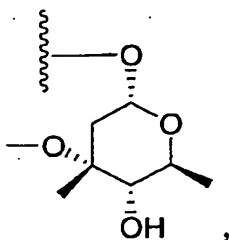
- (xl) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=N-O-R₁₁, R₁₁ = [5-(6-aminopyrid-2-yl)thien-2-yl]methyl, D is -CH₂N(Q)-, Q = Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;
- 5 (xli) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=N-O-R₁₁, R₁₁ = [5-(6-aminopyrid-2-yl)thien-2-yl]methyl, D is -CH₂N(Q)-, Q = CH₃, Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;
- (xlii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=N-O-R₁₁, R₁₁ = [5-(6-aminopyrid-2-yl)thien-2-yl]methyl, D is -CH₂N(Q)-, Q = CH₂CH₂CH₃, Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;
- 10 (xliii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=N-O-R₁₁, R₁₁ = [2-(pyrazol-1-yl)pyrid-5-yl]methyl, D is -CH₂N(Q)-, Q = Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;
- (xliv) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=N-O-R₁₁, R₁₁ = [2-(pyrazol-1-yl)pyrid-5-yl]methyl, D is -CH₂N(Q)-, Q = CH₃, Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;
- 15 (xlv) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=N-O-R₁₁, R₁₁ = 5-[2-(pyrazol-1-yl)pyrid-5-yl]methyl, D is -CH₂N(Q)-, Q = CH₂CH₂CH₃, Z = H, X and Y taken together are oxo, L = CH₂CH₃, R₂' = H;
- (xlvii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=CH₂, D is -CH₂N(Q)-, Q = X = Z = H, Y =
- 20



L = CH₂CH₃, R₂' = H;

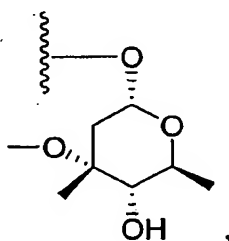
- (xlvii) a compound of Formula I, wherein A and B taken together with the carbon

atom to which they are attached is $C=CH_2$, D is $-CH_2N(Q)-$, $Q = CH_3$, $X = Z = H$, $Y =$



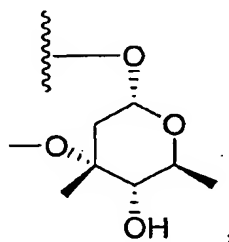
$L = CH_2CH_3$, $R_2' = H$;

- (xlviii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is $C=CH_2$, D is $-CH_2N(Q)-$, $Q = CH_2CH_2CH_3$, $X = Z = H$, $Y =$



$L = CH_2CH_3$, $R_2' = H$;

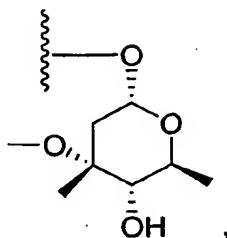
- (xlix) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is $C=N-O-R_{11}$, $R_{11} = [5-(6\text{-aminopyrid-2-yl})\text{thien-2-yl}]methyl$, D is $-CH_2N(Q)-$, $Q = X = Z = H$, $Y =$



$L = CH_2CH_3$, $R_2' = H$;

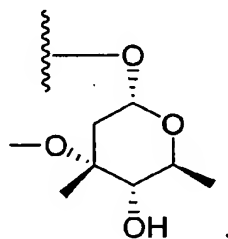
- (l) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is $C=N-O-R_{11}$, $R_{11} = [5-(6\text{-aminopyrid-2-yl})\text{thien-2-yl}]methyl$,

D is $-\text{CH}_2\text{N}(\text{Q})-$, $\text{Q} = \text{CH}_3$, $\text{X} = \text{Z} = \text{H}$, $\text{Y} =$



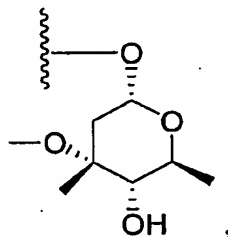
$\text{L} = \text{CH}_2\text{CH}_3$, $\text{R}_2' = \text{H}$;

- (li) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is $\text{C}=\text{N}-\text{O}-\text{R}_{11}$, $\text{R}_{11} = [5-(6\text{-aminopyrid-2-yl})\text{thien-2-yl}]$ methyl, D is $-\text{CH}_2\text{N}(\text{Q})-$, $\text{Q} = \text{CH}_2\text{CH}_2\text{CH}_3$, $\text{X} = \text{Z} = \text{H}$, $\text{Y} =$



$\text{L} = \text{CH}_2\text{CH}_3$, $\text{R}_2' = \text{H}$;

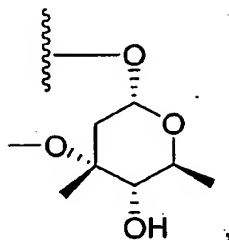
- (lii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is $\text{C}=\text{N}-\text{O}-\text{R}_{11}$, $\text{R}_{11} = [2-(\text{pyrazol-1-yl})\text{pyrid-5-yl}]$ methyl, D is $-\text{CH}_2\text{N}(\text{Q})-$, $\text{Q} = \text{X} = \text{Z} = \text{H}$, $\text{Y} =$



$\text{L} = \text{CH}_2\text{CH}_3$, $\text{R}_2' = \text{H}$;

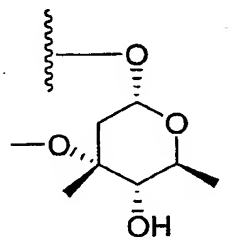
- (liii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is $\text{C}=\text{N}-\text{O}-\text{R}_{11}$, $\text{R}_{11} = [2-(\text{pyrazol-1-yl})\text{pyrid-5-yl}]$ methyl, D is

-CH₂N(Q)-, Q = CH₃, X = Z = H, Y =



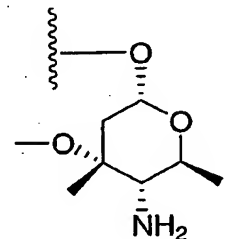
L = CH₂CH₃, R₂' = H;

- (liv) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=N-O-R₁₁, R₁₁ = [2-(pyrazol-1-yl)pyrid-5-yl]methyl, D is -CH₂N(Q)-, Q = CH₂CH₂CH₃, X = Z = H, Y =



L = CH₂CH₃, R₂' = H;

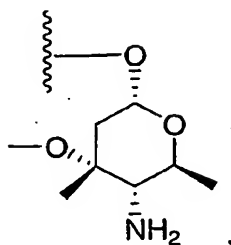
- (lv) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=N-O-R₁₁, R₁₁ = [5-(6-aminopyrid-2-yl)thien-2-yl]methyl, D is -CH₂N(Q)-, Q = X = Z = H, Y =



L = CH₂CH₃, R₂' = H;

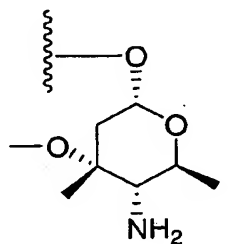
- (lvi) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is C=N-O-R₁₁, R₁₁ = 2-[5-(6-aminopyrid-2-yl)thien-2-

yl)methyl, D is $-\text{CH}_2\text{N}(\text{Q})-$, $\text{Q} = \text{CH}_3$, $\text{X} = \text{Z} = \text{H}$, $\text{Y} =$



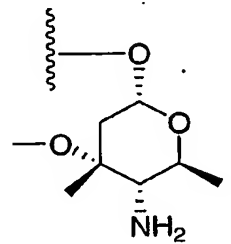
$\text{L} = \text{CH}_2\text{CH}_3$, $\text{R}_2' = \text{H}$;

- (lvii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is $\text{C}=\text{N}-\text{O}-\text{R}_{11}$, $\text{R}_{11} = [5-(6\text{-aminopyrid-2-yl})\text{thien-2-yl}]$ methyl, D is $-\text{CH}_2\text{N}(\text{Q})-$, $\text{Q} = \text{CH}_2\text{CH}_2\text{CH}_3$, $\text{X} = \text{Z} = \text{H}$, $\text{Y} =$



$\text{L} = \text{CH}_2\text{CH}_3$, $\text{R}_2' = \text{H}$;

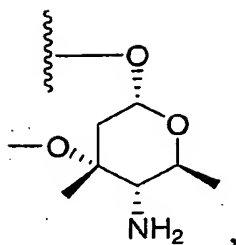
- (lviii) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is $\text{C}=\text{N}-\text{O}-\text{R}_{11}$, $\text{R}_{11} = 5-[2-(\text{pyrazol-1-yl})\text{pyrid-5-yl}]$ methyl, D is $-\text{CH}_2\text{N}(\text{Q})-$, $\text{Q} = \text{X} = \text{Z} = \text{H}$, $\text{Y} =$



$\text{L} = \text{CH}_2\text{CH}_3$, $\text{R}_2' = \text{H}$;

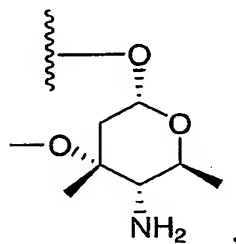
- (lix) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is $\text{C}=\text{N}-\text{O}-\text{R}_{11}$, $\text{R}_{11} = [2-(\text{pyrazol-1-yl})\text{pyrid-5-yl}]$ methyl, D is

$-\text{CH}_2\text{N}(\text{Q})-$, $\text{Q} = \text{CH}_3$, $\text{X} = \text{Z} = \text{H}$, $\text{Y} =$



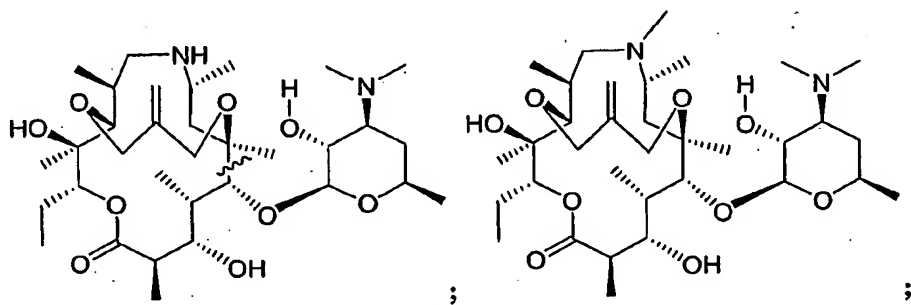
$\text{L} = \text{CH}_2\text{CH}_3$, $\text{R}_2' = \text{H}$; and

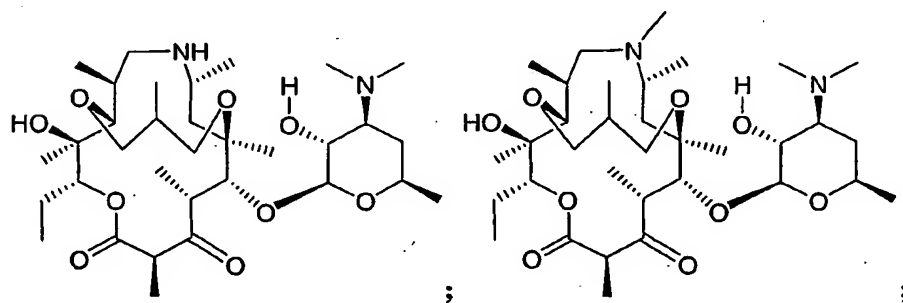
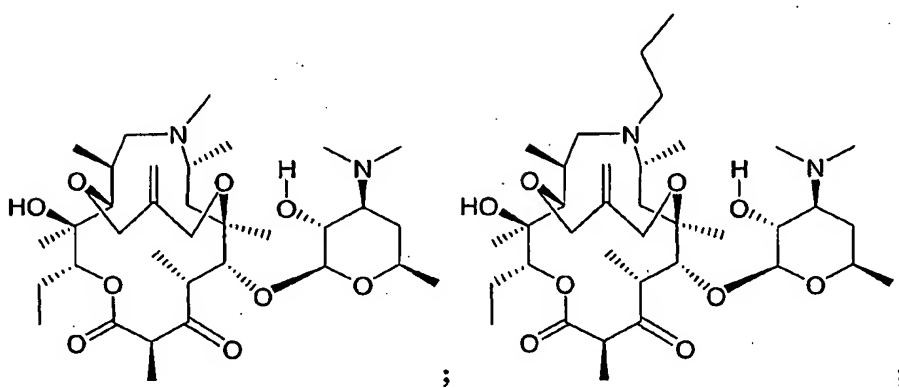
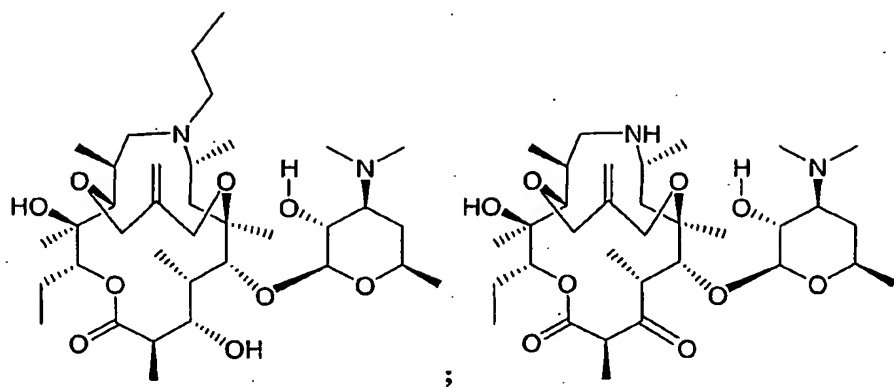
- (lx) a compound of Formula I, wherein A and B taken together with the carbon atom to which they are attached is $\text{C}=\text{N}-\text{O}-\text{R}_{11}$, $\text{R}_{11} = [2-(\text{pyrazol-1-yl})\text{pyrid-5-yl}]\text{methyl}$, D is $-\text{CH}_2\text{N}(\text{Q})-$, $\text{Q} = \text{CH}_2\text{CH}_2\text{CH}_3$, $\text{X} = \text{Z} = \text{H}$, $\text{Y} =$

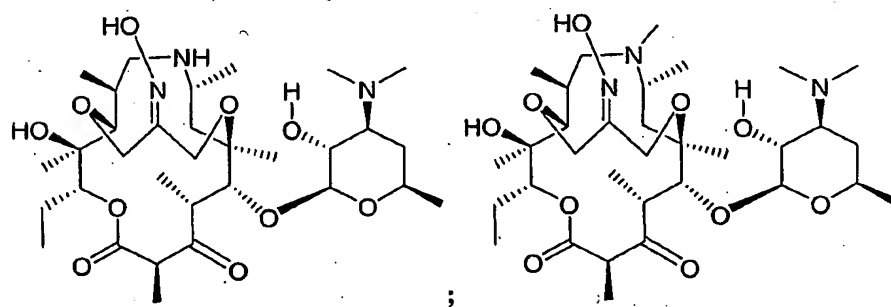
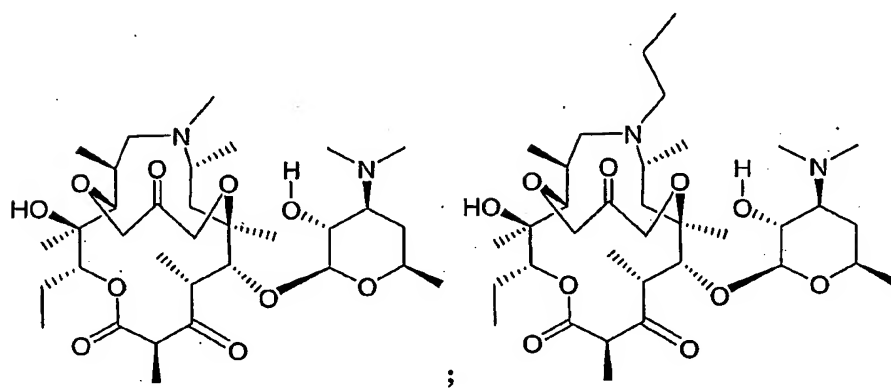
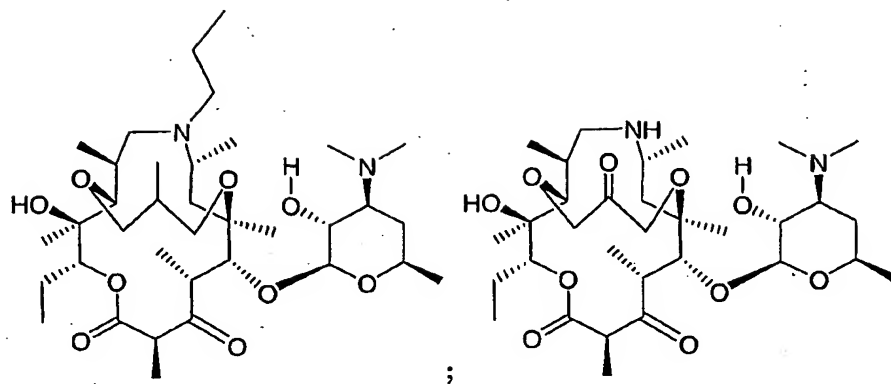


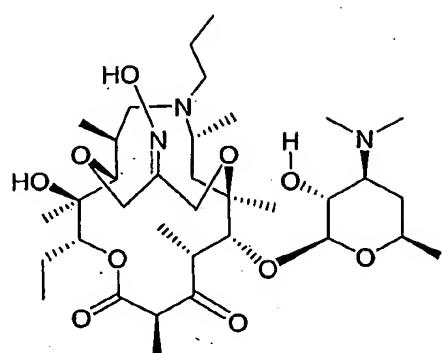
$\text{L} = \text{CH}_2\text{CH}_3$, $\text{R}_2' = \text{H}$.

- 10 9. A compound according to claim 1, or a pharmaceutically acceptable salt or ester or prodrug thereof, selected from the group consisting of:

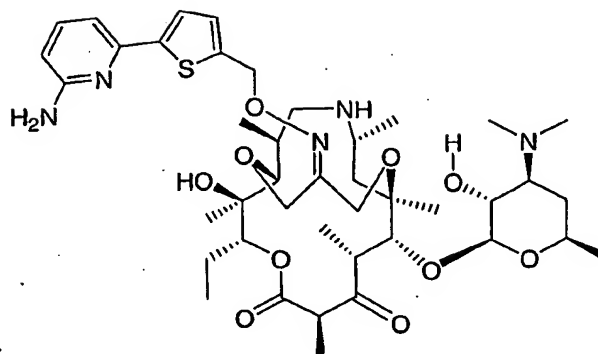




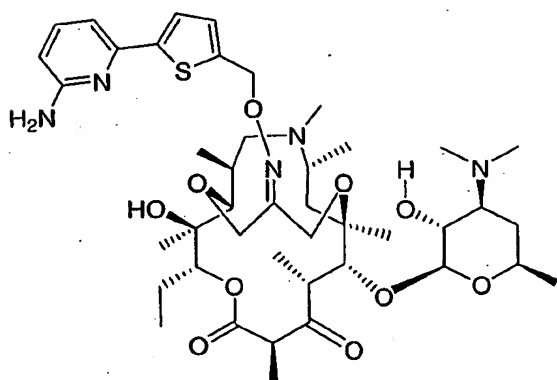




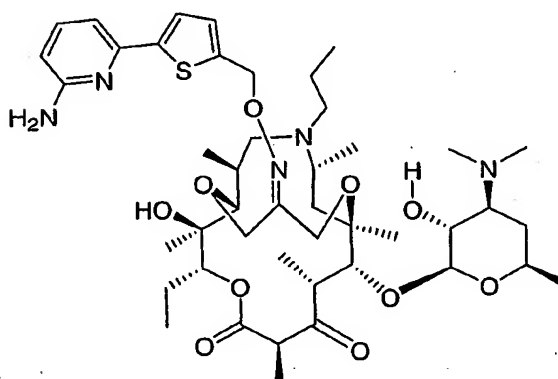
;



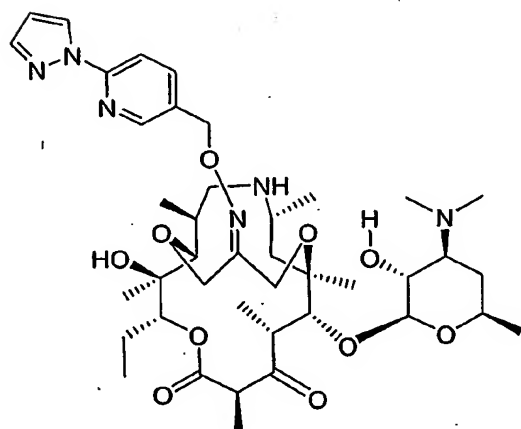
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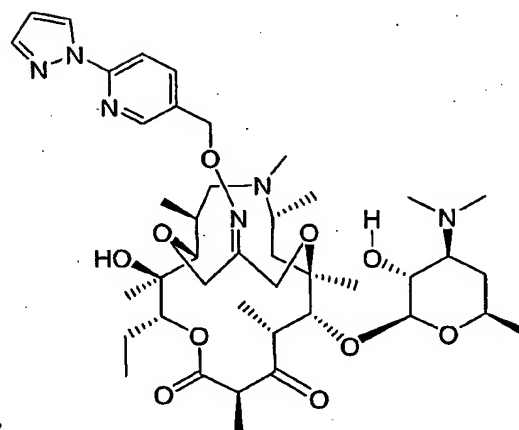
;



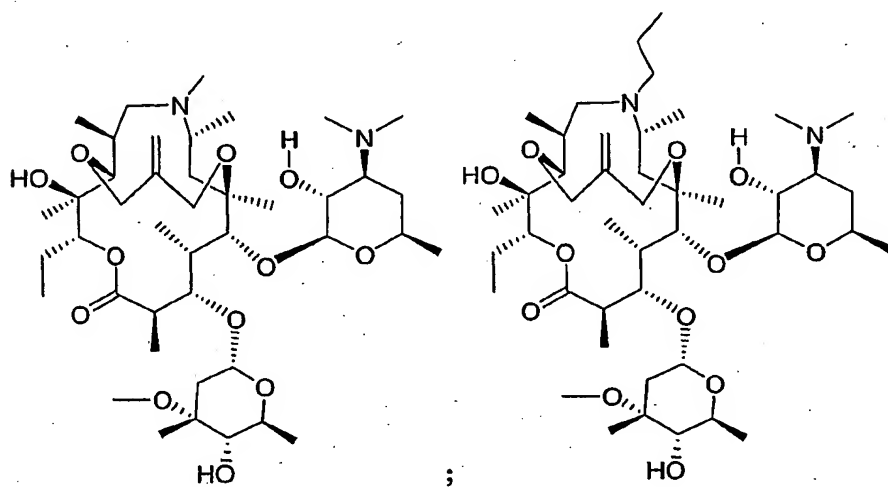
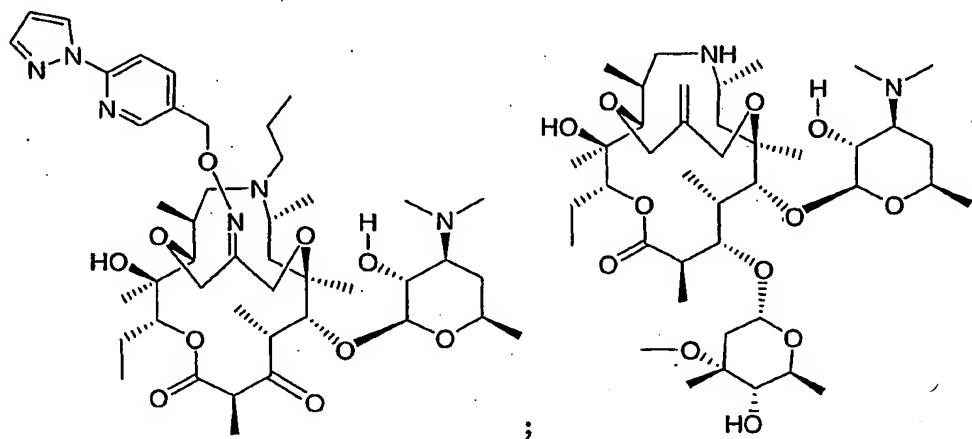
;

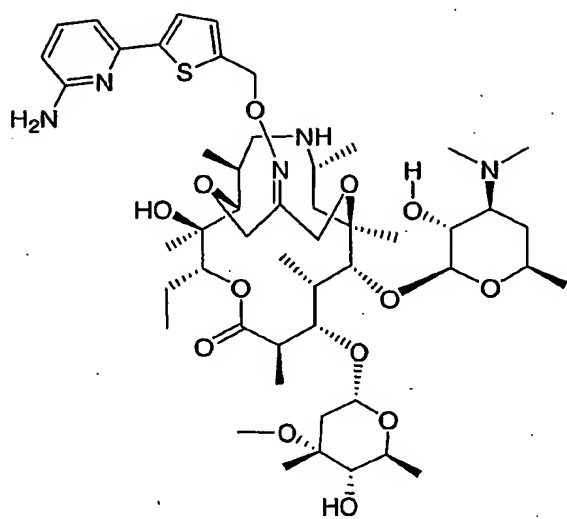


;

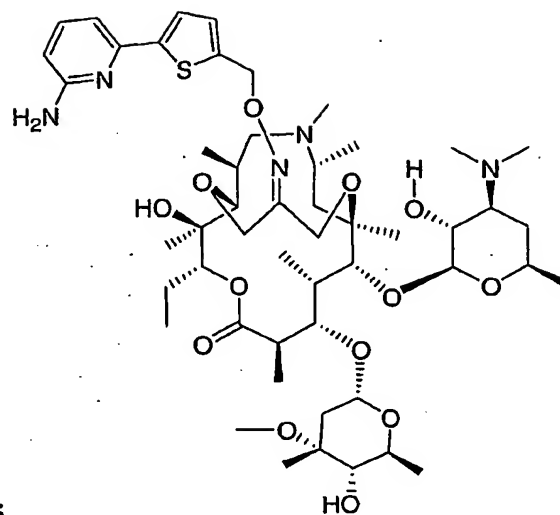


;

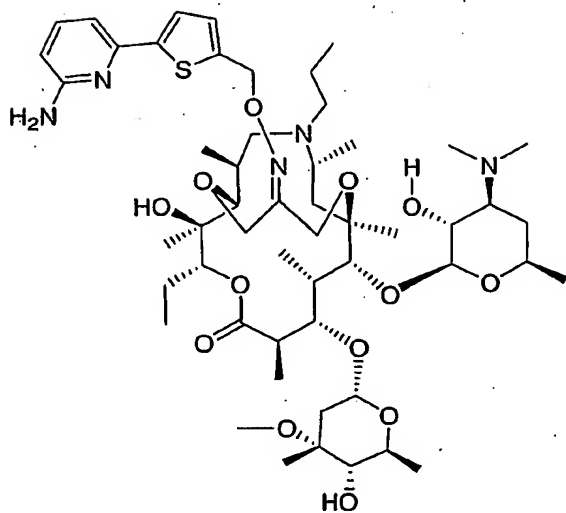




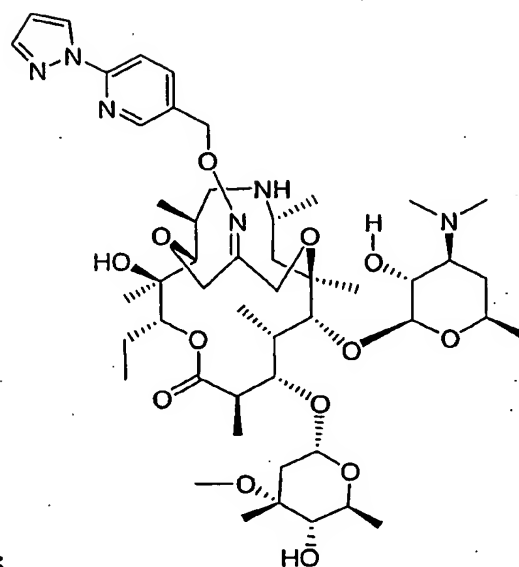
;



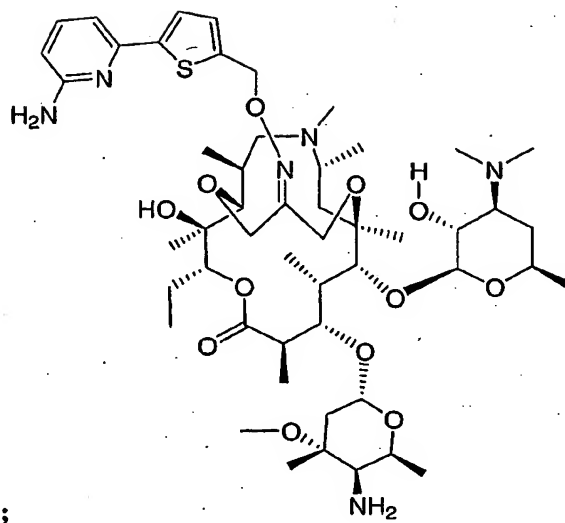
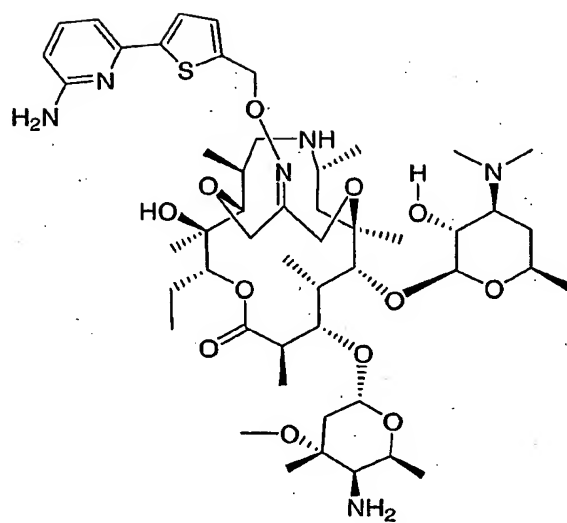
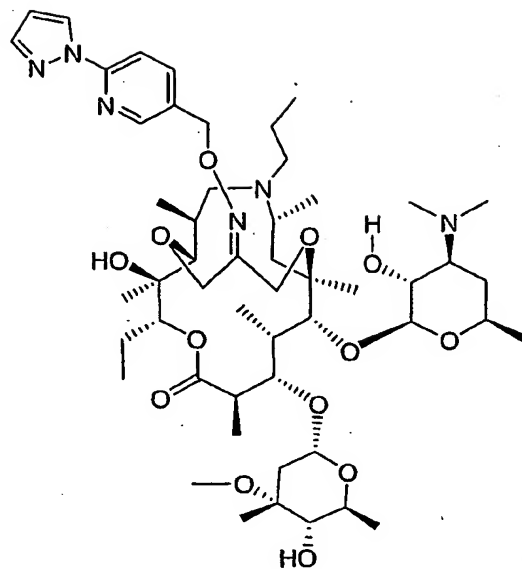
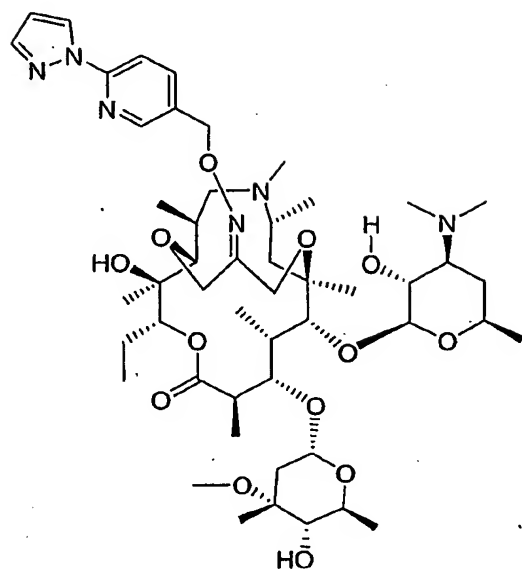
;

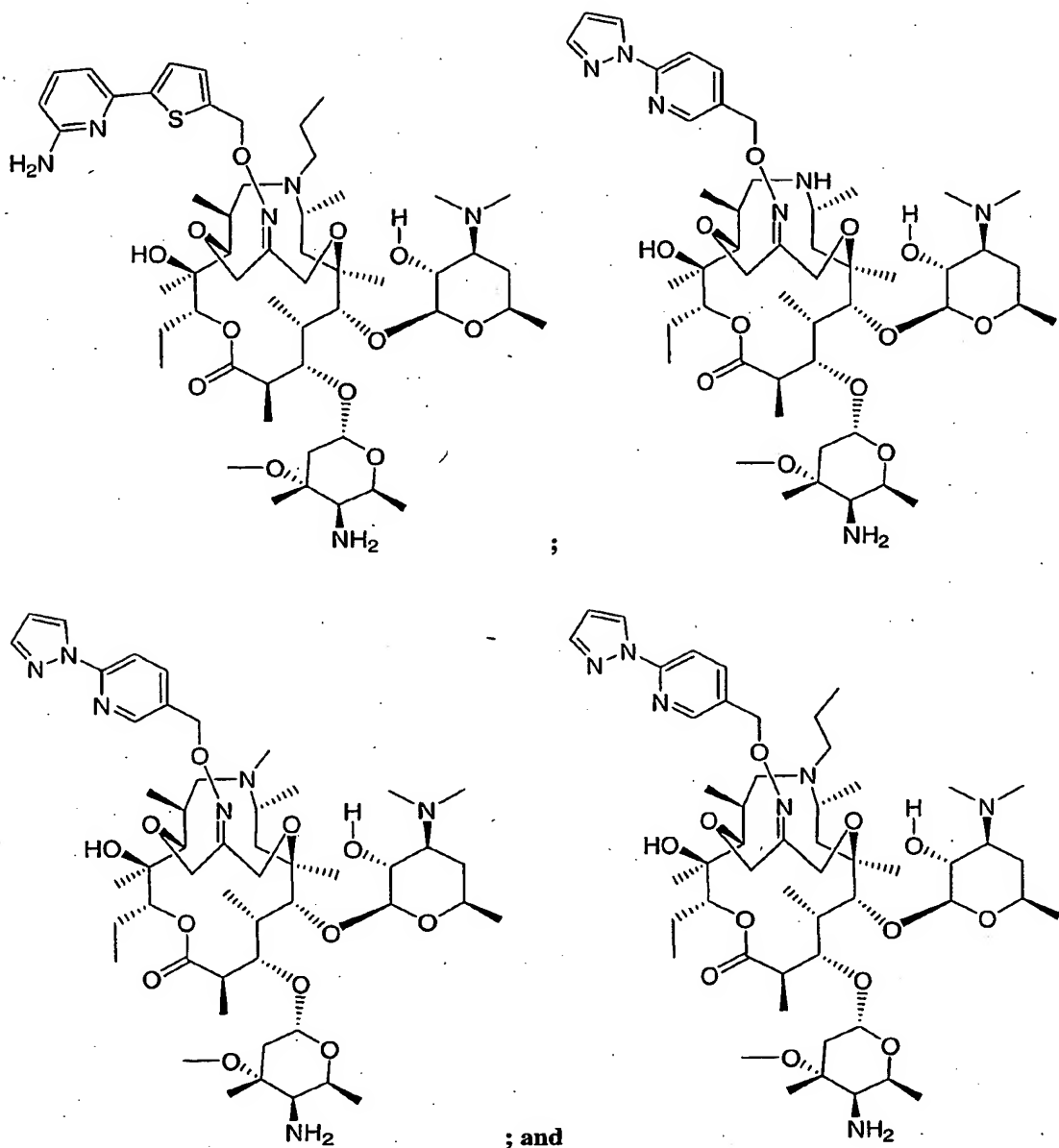


;



;





10. A pharmaceutical composition comprising:

5

- (i) a compound of Formula I as defined in claim 1, or a pharmaceutically acceptable salt or ester or prodrug thereof, in an amount effective for treating or preventing a bacterial infection; and
- (ii) a pharmaceutically acceptable carrier.

11. A pharmaceutical combination of
- (i) a compound of Formula I as defined in claim 1, or a pharmaceutically acceptable salt or ester or prodrug thereof, and
- 5 (ii) an antibacterial agent other than a compound of Formula I or a salt, ester or prodrug thereof;

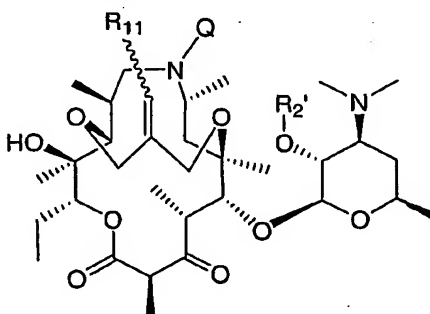
wherein the compound of Formula I or its pharmaceutically acceptable salt or ester or prodrug and the antibacterial agent are each employed in an amount that renders the combination effective for treating or preventing a bacterial infection.

12. A method for treating or preventing a bacterial infection in a subject in need thereof, which comprises administering to the subject a therapeutically or prophylactically effective amount of a compound according to claim 1, or a pharmaceutically acceptable salt or ester or prodrug thereof.

13. A method for treating or preventing a bacterial infection in a subject in need thereof, which comprises administering to the subject a therapeutically or prophylactically effective amount of a pharmaceutical composition according to claim 10.

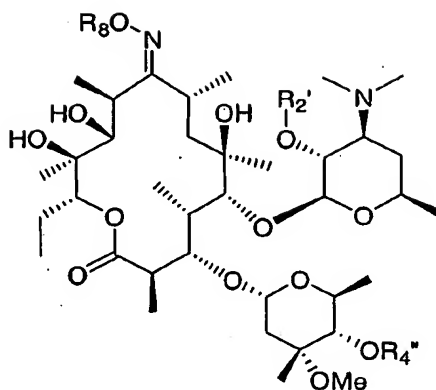
14. A method for treating or preventing a bacterial infection in a subject in need thereof, which comprises administering to the subject a therapeutically or prophylactically effective amount of a pharmaceutical combination according to claim 11.

15. A process for the preparation of a compound of formula:

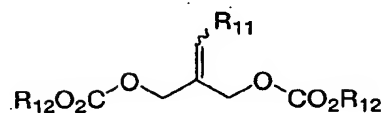


wherein Q and R₂' are each as defined in claim 1, which comprises:

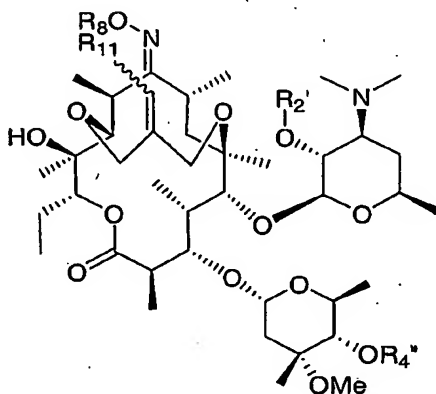
- (1) reacting a compound of formula:



with an alkylating agent of formula:



5 in the presence of a phosphine ligand and Pd(O) catalyst under reflux conditions to prepare a compound of the Formula:



wherein:
R8 is

- 10 a. hydrogen,
 b. -CH₂O(CH₂)₂OCH₃,
 c. -CH₂O(CH₂O)_nCH₃ where n is zero, 1 or 2;
 d. -C₁-C₁₂ alkyl, optionally substituted with one or more substituents selected from aryl,
 substituted aryl, heteroaryl and substituted heteroaryl;
 e. -C₃-C₁₂ cycloalkyl;
15 f. -C(O)-C₁-C₁₂ alkyl;

- g. $-\text{C}(\text{O})-\text{C}_3-\text{C}_{12}$ cycloalkyl;
- h. $-\text{C}(\text{O})-\text{R}_1$, where R_1 is as previously defined; or
- i. $-\text{Si}(\text{R}_a)(\text{R}_b)(\text{R}_c)$, wherein R_a , R_b and R_c are each independently selected from C_1-C_{12} alkyl, aryl and substituted aryl;

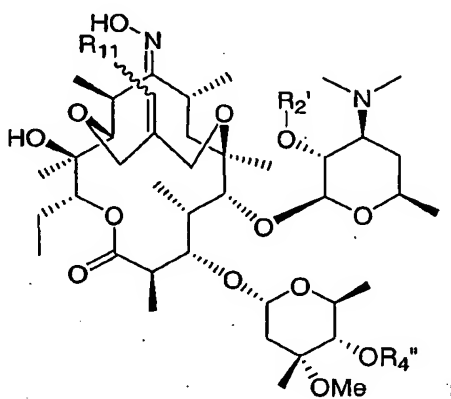
5

R_2' and R_4'' are as previously defined in claim 1; and

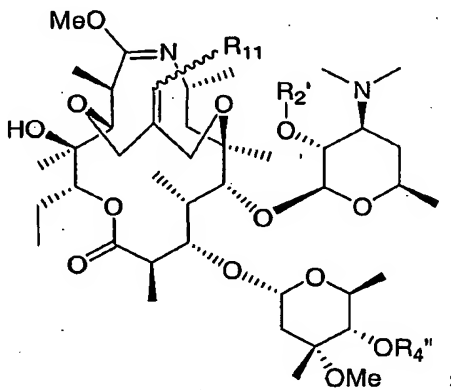
R_{11} is as defined in claim 1 and R_{12} is C_1-C_{12} alkyl;

10

(2) treating the compound obtained in step (1) with an aqueous base to obtain the Z-oxime of formula:

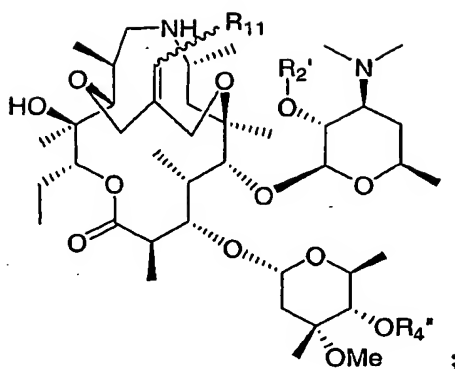


(3) reacting the compound prepared in step (2) with an oxime activating agent and quenching with methanol to prepare a compound of formula:

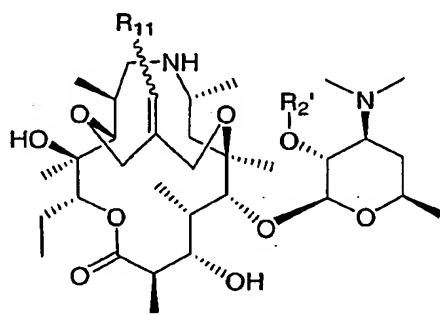


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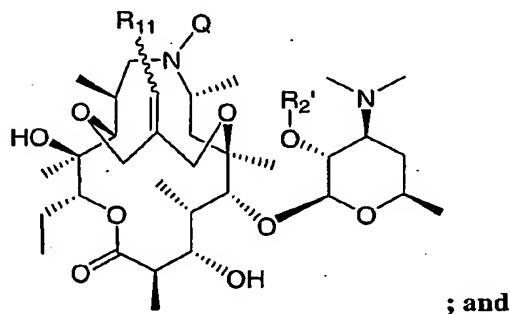
(4) reacting the compound prepared in step (3) with a reducing agent to prepare compound of formula:



(5) reacting the compound prepared in step (4) with a mild acid to prepare a compound of formula:



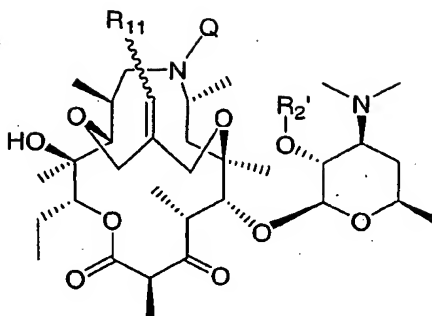
5 (6) reacting the compound prepared in step (5) with an agent containing the group Q selected from the group consisting of an alkylating agent, an alkyl halide in the presence of a base, and an aldehyde via reductive amination in the presence of $NaCNBH_3$ to prepare a compound of formula:



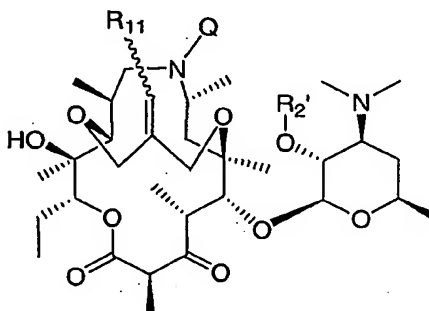
; and

10 (7) oxidizing the hydroxyl in the 3 position of the compound prepared in step (6) via Dess-Martin oxidation, Corey-Kim oxidation, or a Moffat oxidation to prepare a

compound of formula:



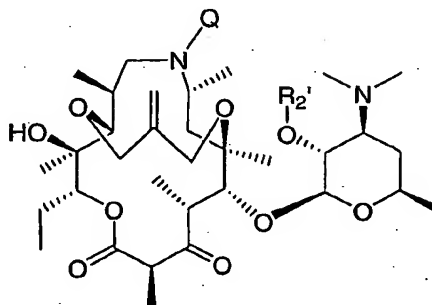
16. A process of preparing compounds of formula:



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which comprises

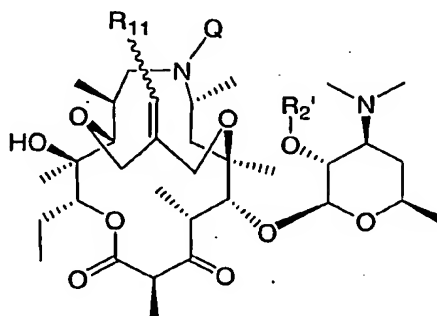
(a) reacting a compound of formula:



10 with $\text{CH}_2=\text{CH}-\text{R}_{11}$ in the presence of a ruthenium catalyst;

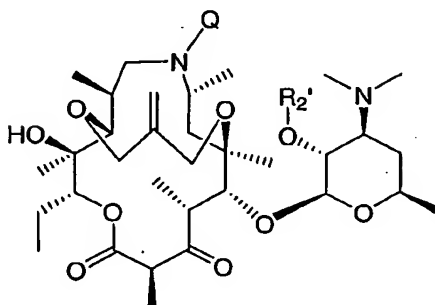
wherein Q, R_2' , and R_{11} are each as defined in claim 1.

17. A process of preparing compounds of formula:



which comprises

- (a) reacting a compound of formula:

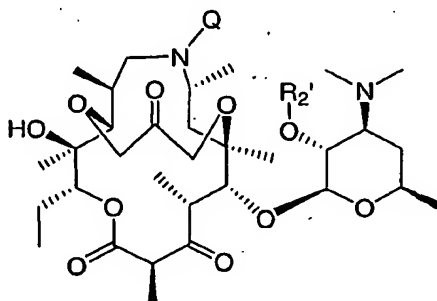


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with R_{11} -halide under Heck coupling conditions using a palladium catalyst optionally with a phosphine ligand;

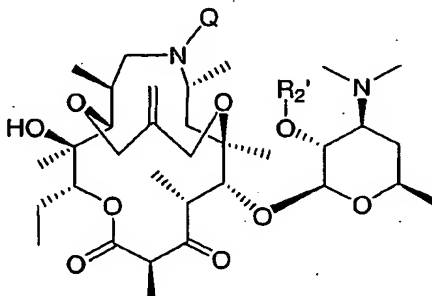
10 wherein Q and $R_{2'}$ are each as defined in claim 1; and R_{11} is aryl, substituted aryl, or C_1 - C_6 alkyl substituted with aryl or substituted aryl.

18. A process of preparing a compound of the Formula:



which comprises:

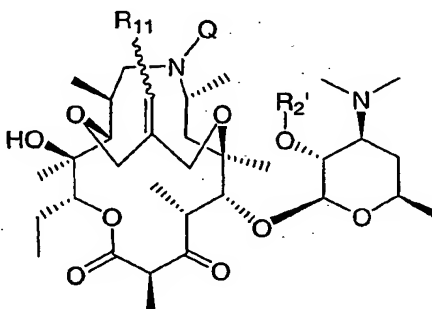
- (a) performing ozonolysis on a compound of formula:



wherein Q and R₂' are each as defined in claim 1.

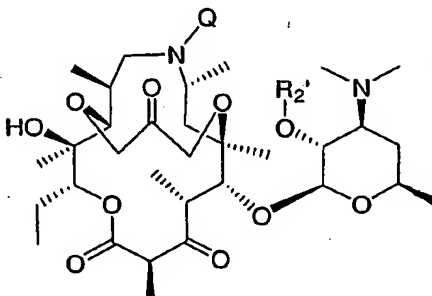
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19. A process of preparing a compound of formula:



which comprises:

- 10 (a) reacting a compound of formula:

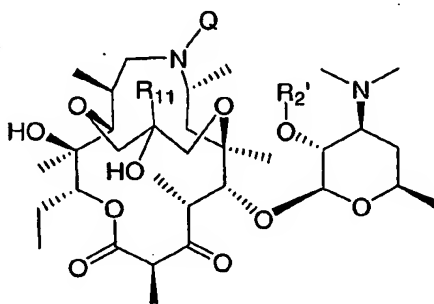


with a phosphoylid under Wittig conditions;

wherein Q, R₂', and R₁₁ are as defined in claim 1.

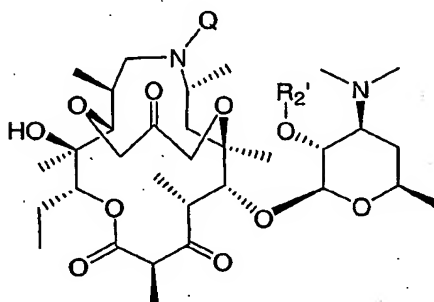
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20. A process of preparing a compound of formula:



which comprises:

- (a) reacting a compound of formula:



5

with a Grignard reagent containing the R₁₁ group;

wherein Q, R₂', and R₁₁ are as defined in claim 1.